

## **ENVIRONMENTAL PROTECTION OFFICE OF AIR QUALITY MANAGEMENT**

### **Diesel-Powered Motor Vehicle Inspection and Maintenance Program**

**Adopted Amendments:** N.J.A.C. 7:27-14.1, and 14.5, and 7:27B-4.1, 4.2 and 4.3

**Proposed:** April 5, 1999 at 31 N.J.R. 828(a).

**Adopted:** By Robert C. Shinn Jr., Commissioner, Department of Environmental Protection, in consultation with the Division of Motor Vehicles and the Department of Transportation.

**Filed:** June 11, 1999 as R. 1999, d., **with non-substantive and technical changes** not requiring additional public notice and comment (See N.J.A.C. 1:30-4.3).

**Authority:** N.J.S.A. 13:1B-3(e), 13:1D-9, 26:2C-8 et seq., specifically 26:2C-8, 8.1 through 8.5, 8.11, and N.J.S.A. 39:8-61.

**DEP Docket Number:** 05-99-03/691.

**Effective Date:** July 6, 1999

**Operative Date:** August 10, 1999

**Expiration Date:** Exempt.

The Department of Environmental Protection (the Department) is adopting amendments to N.J.A.C. 7:27-14 (Subchapter 14, Control and Prohibition of Air Pollution From Diesel-Powered Motor Vehicles) and N.J.A.C. 7:27B-4 (Subchapter 4, Air Test Method 4: Testing Procedures for Motor Vehicles), its rules which govern emission standards, testing procedures and equipment specifications for the inspection of diesel-powered motor vehicles.

The primary purpose of the adopted amendments is 1) to clarify that certain testing procedures are required only during inspections conducted by State-licensed Diesel Emission Inspection Centers (DEICs) as part of the periodic inspection program but are not required during inspections conducted by the Division of Motor Vehicles (DMV) and the State Police (roadside enforcement teams) as part of the roadside enforcement program, and 2) to correct certain typographical inconsistencies regarding the vehicle engine size and transmission type for which the snap acceleration smoke opacity test and the stall acceleration test are to be employed.

More specifically, the first set of amendments clarify that only DEICs, and not the roadside enforcement teams, perform certain functions in addition to the basic inspection procedures followed by both the DEICs and the roadside enforcement teams which would not be practical at a roadside

inspection but help ensure the integrity of the inspection program at the DEICs. Specifically, the amendments clarify that the DEICs, and not the roadside enforcement teams, do the following: 1) use engine oil temperature sensors and reflect, on the printed test report, the engine oil temperature recorded by these sensors during the test; 2) use engine speed, or revolutions per minute (RPM), sensors and reflect, on the printed test report, the RPM pattern recorded by these sensors during the test; and 3) repair all significant exhaust leaks before conducting a smoke opacity test.

Accordingly, the Department has clarified that the above testing requirements apply only to DEICs by amending the provisions at N.J.A.C. 7:27B-4.2(a)3, (a)4 and (a)8 as set forth in the proposal.

Similarly, the second set of amendments merely corrects inadvertent typographic discrepancies as to the subset of diesel vehicles, based on engine size and transmission type (automatic or manual), which receives each smoke opacity test. That is, the adopted amendments clarify that the snap acceleration smoke opacity test is to be performed only on diesel vehicles equipped with low or medium-speed engines, without regard to whether the vehicle's transmission is manual or automatic, and that the stall smoke opacity test is to be performed on diesel vehicles equipped with medium or high-speed engine, and an automatic transmission, only.

The Department's proposal appeared in the New Jersey Register on April 5, 1999 at 31 N.J.R. 828(a). The Department held a public hearing on May 6, 1999 to provide interested parties the opportunity to present comments on the proposed amendments. The comment period closed on May 10, 1999. The Department received no comments on its proposed amendments.

**Summary** of Hearing Officer's Recommendations and Agency Responses:

David West, Chief of the Bureau of Transportation Control in the Office of Air Quality Management, served as the Hearing Officer at the May 6, 1999, public hearing held at the Department of Environmental Protection Building in Trenton, New Jersey. The Hearing Officer recommended that the Department adopt the proposed rule amendments, with clerical, non-substantive changes, not requiring re-proposal. The Department has accepted the Hearing Officer's recommendations.

The Department adopts herein the proposed amendments. Please see the Summary of Public Comments and Agency Responses and the Summary of Agency-Initiated Changes, below. The Hearing Officer's recommendations are set forth in the hearing officer's report. A copy of the record of public hearing is available upon payment of the Department's normal charges for copying (\$0.75 per page for first 10 pages, \$0.50 per page for the following 10 pages, \$0.25 per page for additional pages). Persons requesting copies should contact:

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### **Summary of Agency-Initiated Changes:**

The Department is making a non-substantive, clerical amendment to the definitions of “medium speed diesel engine” set forth at N.J.A.C. 7:27-14 and N.J.A.C. 7:27B-4. The term “maximum” was inadvertently omitted from these definitions, which are otherwise of identical structure to the definitions of “low speed diesel engine” and “high speed diesel engine” in these subchapters, with which this definition is intended to coordinate.

### **Federal Standards Statement**

Executive Order No. 27 (1994) and P.L. 1995, c. 65 require State agencies which adopt, readopt or amend State regulations that exceed any Federal standards or requirements to include in the rulemaking document a comparison with Federal law. The adopted amendments to N.J.A.C. 7:27-14 and N.J.A.C. 7:27B-4 are not promulgated under the authority of, or in order to implement, comply with or participate in any program established under Federal law or under a State statute that incorporates or refers to Federal law, Federal standards or Federal requirements. Moreover, there is no comparable Federal standard exceeded by this rulemaking and no federal regulatory scheme which might be perceived to be duplicated or overlapped by this rulemaking. Accordingly, Executive Order No. 27 (1994) and P.L. 1995, c. 65 do not require a Federal standards analysis.

**Full text** of the adoption follows (additions to proposal indicated in boldface with asterisks **\*thus\***; deletions from to proposal indicated in brackets with asterisks **\*[thus]\***):

7:27-14.1 Definitions

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise.

...

"High speed diesel engine" means any diesel engine with a maximum governed engine speed over 2,800 RPM.

...

"Low speed diesel engine" means any diesel engine with a maximum governed engine speed of no more than 2,200 RPM.

"Medium speed diesel engine" means any diesel engine with a **\*maximum\*** governed engine speed of 2,201 RPM to 2,800 RPM.

...

7:27-14.5 Test requirements

- (a) A person testing a diesel-powered motor vehicle as part of the roadside enforcement program established pursuant to N.J.S.A. 39:8-64 and N.J.A.C. 13:20-46 shall use one or more of the following tests, as designated by the Director of the Division of Motor Vehicles in consultation with the Department and the New Jersey Department of Transportation, and with the approval of the Attorney General:
  - 1. The snap acceleration smoke opacity test, for a vehicle with a low or a medium speed diesel engine, only, as described at N.J.A.C. 7:27B-4.3(a);
  - 2. (No change.)
  - 3. The stall smoke opacity test, for a vehicle with a medium or high speed diesel engine and an automatic transmission, only, as described at N.J.A.C. 7:27B-4.3(c); or
  - 4. (No change.)
- (b) A person testing a heavy-duty diesel vehicle as part of the periodic inspection program established pursuant to N.J.S.A. 39:8-64 and N.J.A.C. 13:20-26.17 shall use one of the following tests:

1. The snap acceleration smoke opacity test, for a vehicle with a low or a medium speed diesel engine, only, as described at N.J.A.C. 7:27B-4.3(a);
2. (No change.)
3. The stall smoke opacity test, for a vehicle with a medium or high speed diesel engine and an automatic transmission, only, as described at N.J.A.C. 7:27B-4.3(c); or
4. (No change.)

(c) - (e) (No change.)

#### 7:27B-4.1 Definitions

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise.

...

"High speed diesel engine" means any diesel engine with a maximum governed engine speed over 2,800 RPM.

...

"Low speed diesel engine" means any diesel engine with a maximum governed engine speed of no more than 2,200 RPM.

...

"Medium speed diesel engine" means any diesel engine with a **\*maximum\*** governed engine speed of 2,201 RPM to 2,800 RPM.

...

#### 7:27B-4.2 General instructions for all tests

(a) The general procedures which must be carried out in order for an emissions test conducted pursuant to any provision of this subchapter to be valid are as follows:

1. - 2. (No change.)
3. When testing a heavy-duty diesel vehicle, bring the engine to normal operating temperature by operating the vehicle on a highway or a chassis dynamometer with a road load for a minimum of 15 minutes. For testing at a DEIC, only, confirm proper

engine operating temperature by inserting an oil temperature probe through the oil dipstick tube into the crankcase oil, so that the oil temperature as measured during the test will be recorded as part of the analyzer printout at the conclusion of the test. Oil temperature shall be at least 70 degrees Celsius (160 degrees Fahrenheit), and water temperature shall be at least 82 degrees Celsius (180 degrees Fahrenheit) but not overheating.

4. Examine the vehicle's exhaust system for integrity. For testing at a DEIC, only, tighten all loose pipe connections and repair all significant exhaust leaks before performing a test;

5. - 7. (No change.)

8. Determine that the engine speed governor is in proper operating condition. For DEICs only, make this determination as follows : operate the engine with the transmission in neutral and the clutch disengaged. Gradually increase the engine speed from curb idle to high idle while observing an RPM sensor connected to the engine. The engine speed should not exceed high idle as specified by the engine manufacturer with the accelerator pedal fully depressed. If the engine speed continues increasing beyond the manufacturer's rated high idle, immediately release the accelerator pedal. If the engine speed increases uncontrollably, immediately release the accelerator pedal and shut off the engine's fuel supply. Discontinue emission testing of any vehicle with dysfunctional or out-of-specification engine speed governors. Do not resume testing unless and until speed governor repairs are made;

9. - 12. (No change.)

(b) - (d) (No change.)

7:27B-4.3 Procedures for using a smokemeter to measure the smoke opacity of heavy-duty diesel vehicles and diesel buses.

- (a) The testing procedures for the snap acceleration smoke opacity test, required pursuant to N.J.A.C. 7:27-14.5, shall be performed on heavy-duty diesel vehicles and diesel buses which are equipped with low or medium-speed diesel engines as follows:

1. - 14. (No change)

(b) - (e) (No change.)